

Mecklenburg County Common Code Defects

Residential Building

Code Defects

- Handrail and/or guardrail missing.
- Incorrect height for handrail and/or guardrail.
- Spacing between vertical members too wide.
- Handgrip portion of handrail incorrect.

Code Description

Section R315.1 Handrails:

“Handrails having minimum and maximum heights of 30 inches and 38 inches respectively, measured vertically from the nosing of the treads, shall be provided on at least one side of stairways. All required handrails shall be continuous the full length of the stairs with four or more risers from a point directly above the top riser of a flight to a point directly above the lowest riser of the flight. Ends shall be returned or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 1 ½ inches between the wall and the handrail.

Exceptions:

1. Handrails shall be permitted to be interrupted by a newel post at a turn.
2. The use of a volute, turnout or starting easing shall be allowed over the lowest tread.

Section R315.2 Handrail grip size:

The handgrip portion of handrails shall have a circular cross section of 1 ¼ inches minimum to 2 5/8 inches maximum. Other handrail shapes that provide an equivalent grasping surface are permissible. Edges shall have a minimum radius of 1/8 inch.

Exception: Exterior handrails shall not be more than 3 ½ inches in cross-sectional dimension.

Section R316.1 Guards required:

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Porches, balconies or raised floor surfaces located more than 30 inches above the floor or grade below shall have guardrails not less than 36 inches in height. Open sides of stairs with a total rise of more than 30 inches above the floor or grade below shall have guards not less than 30 inches in height measured vertically from the nosing of the treads.

Section 315.4 Guard and handrail opening limitations:

Required guards on open sides of stairways, raised floor areas, balconies and porches shall have intermediate rails or ornamental closures that do not allow the passage of an object 6 inches or more in diameter. Horizontal spacing between the vertical members in required guardrails shall be a maximum of 4 inches at the nearest point between the members.

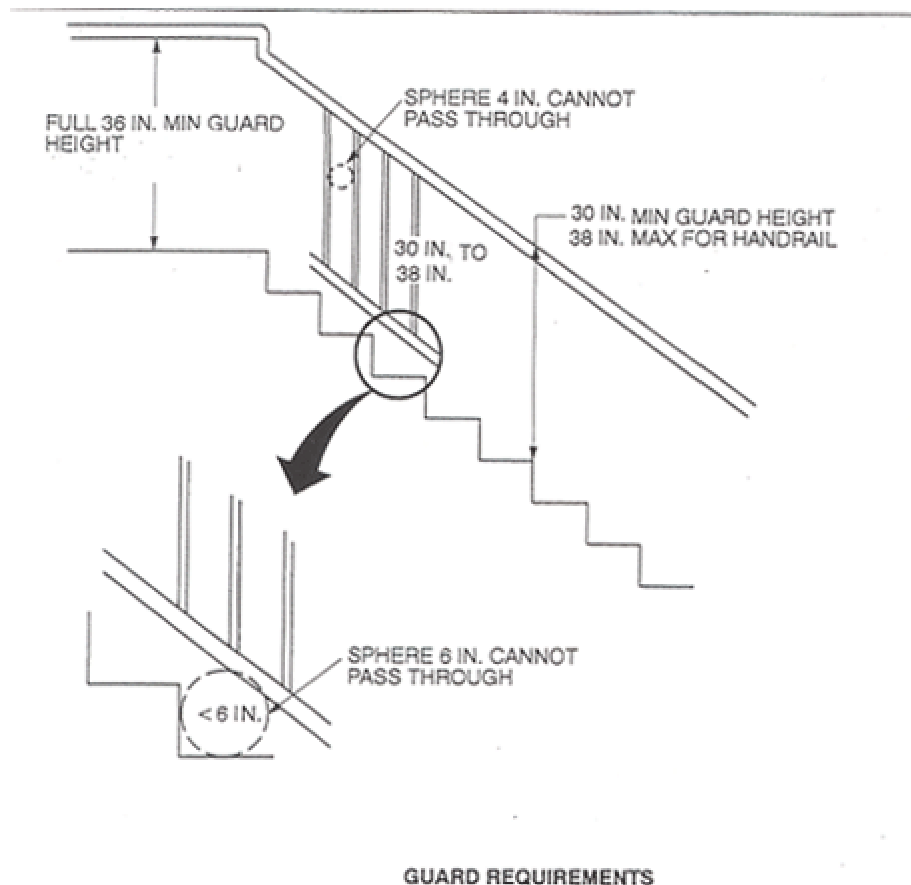
Exception: The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway may be of such a size that a sphere 6 inches cannot pass through.

Possible Options:

In this situation, handrails and/or guardrails shall be secured sufficiently enough to support 200 lbs lateral force. (Please view the attached drawing.)

Disclaimer: There may be other ways to comply with the Code. If so, you are not required to use this method to comply with the Code. You may want to investigate other options, or consult with a design professional identifying an equally code compliant solution.

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End Notes

North Carolina State Building Code

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